

REMARKS

Claims 1-5 are pending in this application. By this Amendment, Fig. 3 and claims 1-3 are amended and new claim 5 is added. Fig. 3 is amended to address a drawing objection by the Patent Office

No new matter is added to the application by this Amendment. Support for the features added to claim 1 can be found in claim 1, as originally filed, and within the specification, as originally filed, at, for example, page 8, line 16. The features added to claim 2 find support within the specification, as originally filed, at, for example, page 7, line 19 – page 8, line 4. New claim 5 finds support in Fig. 5, as originally filed.

I. Drawing Objection

The drawings were objected to for failing to comply with 37 C.F.R. §1.83(a) by allegedly not showing every feature of the invention specified in the claims. This objection is respectfully traversed.

Specifically, the Patent Office alleges that the features “the reinforcement bar in a deck plate or slab type mold installed on the steel-frame beam, and mounting of a reinforcing bar on a wall of the core” must be shown in the drawings or the features must be canceled from the claims.

Attached herewith is a replacement sheet including amended Fig 3. Amended Fig. 3 shows reinforcing bar 21b mounted on a wall of the core 21, as discussed in the specification, as filed, at, for example, page 8, line 15. No new matter is being entered and Applicant submits that the drawings show each and every feature of the invention specified in the claims in compliance with 37 CFR §1.83(a) and §1.121(d)

Accordingly, withdrawal of the objection to the drawings is respectfully

requested.

II. Rejection Under 35 U.S.C. §103

Claims 1-4 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,266,938 to Sheu et al. (hereinafter “Sheu”) in view of U.S. Patent No. 2,345,500 to Petter. This rejection is respectfully traversed.

The Patent Office acknowledges that Sheu does not expressly disclose the step of installing the steel-frame pillar on a shaft portion of the core (see page 4 of the present Office Action). The Patent Office introduces Petter as allegedly teaching installing a pillar on the shaft portion of a concrete footing/foundation core. The Patent Office alleges that (1) Petter and Sheu are analogous art because they are from the same field of erecting static load-bearing structures, (2) it would have been obvious to one of ordinary skill in the art to install the steel-frame pillars of Sheu on the shaft portion of the core of Petter, and (3) the motivation to combine would have been to provide a base support to the structure of Sheu. Applicant respectfully disagrees with the allegations by the Patent Office.

The Patent Office alleges that the feature corresponding to Reference Number 7 (hereinafter “Ref. No. 7”) in Figs. 2 and 6 of Sheu corresponds to the presently claimed deck plate (see page 3 of the Office Action). Contrary to the allegations by the Patent Office, Ref. No. 7 in Figs. 2 and 6 of Sheu refers to net plates 7 which are laid on the outer surfaces of the combined steel floor structure and used as outer concrete form plates so that concrete may be poured in the steel floor structure (see col. 1, lines 63-65, col. 2, lines 63 and 64, col. 3, lines 39-41 and col. 4, lines 9-12). However, the net plates 7 according to Sheu do not teach or suggest the presently claimed deck plate as alleged by

the Patent Office.

Instead, Sheu teaches away from using a deck plate as required by the present claims because Sheu teaches that use of corrugated steel deck plates causes inferior results (for several different reasons) when compared to results obtained by using Sheu's net plates (see col. 1, lines 24-55, col. 4, lines 48-56, col. 4, line 61 – col. 5, line 32). Specifically, Sheu teaches that use of corrugated steel deck plates (a) in conjunction with shearing force bolts to connect the plates result in weak points of the building structure, (b) hamper continuity of concrete steel columns and steel beams, (c) makes up a rough ceiling of wave shapes requiring additional work to be decorated which wastes resources and reduces the height of the room and living quality, (d) in conjunction with concrete results in an inferior combination because concrete does not have the same thickness and may be liable to produce crevices or cracks to cause water sipping, (e) hampers flow of concrete in concrete pouring process to affect the quality of the concrete, (f) is inferior because net plates have high toughness to constrict completely the concrete inside the net plates and the concrete may not easily rupture or break to pieces in case of earthquakes or shocks, and (g) can let air bubbles in concrete pouring escape through small net holes and concrete can fill up the net holes not to cause so called “bee hive” condition in concrete as easily happens in the conventional reinforcing steel concrete buildings (see col. 1, lines 24-55, col. 4, lines 48-56, col. 4, line 61 – col. 5, line 32)

Because Sheu teaches away from use of a corrugated steel deck plate, one of ordinary skill in the art would not turn to the teachings of Sheu to achieve the presently claimed invention which comprises a step of installing a deck plate on a steel-frame beam as recited in claim 1. Thus, Sheu clearly fails to teach or suggest the presently claimed

step of installing a deck plate on the steel-frame beam.

Petter fails to remedy the deficiencies of Sheu because Petter fails to teach or suggest use of a deck plate or a step of installing a deck plate on a steel-frame beam. Accordingly, Sheu and Petter, taken singly or in combination, do not teach or suggest a method having a step of installing a deck plate on a steel-frame beam as required by claim 1.

Petter is irrelevant to the present invention because the present claims are directed to a method for constructing a high rise building having a core and a residence space around the core and Petter is directed to a small wooden frame demountable dwelling house of pre-fabricated construction (see col. 1, lines 1-3). Petter achieves the small wooden frame demountable dwelling houses by utilizing simple foundations of much smaller area than the floor plan for supporting the roof structure (see col. 1, lines 32-46). At best, as shown in Figs. 1-4, Petter is directed to a single story structure having four columns made of either dimension lumber or laminated sections with lower ends of the columns being supported in metal shoes, embedded in a concrete footing or foundation wall (see col. 1, lines 51-55).

In contrast to Petter, the present claims require installing a steel-frame pillar on a shaft portion of the core. Petter's columns, made of dimension lumber or laminated sections, having lower ends supported in metal shoes and embedded in concrete do not teach or suggest a step of installing a steel-frame pillar on a shaft portion of the core as required by the present claims. Nowhere does Petter teach use of a steel-frame pillar as required by the claims or a steel floor structure as taught by Sheu. Thus, it would not have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Sheu's steel floor structure with the teachings of Petter's small single story wooden frame structure to achieve the presently claimed method for constructing a high rise building having a step of installing a steel-frame pillar on a shaft portion of the core. Accordingly, Sheu and Petter do not teach or suggest a method for constructing a high rise building having a step of installing a steel frame pillar on a shaft portion of the core as required by claim 1.

Because the features of independent claim 1 are not taught or suggested by Sheu and Petter, taken singly or in combination, these references would not have rendered the features of claims 1-4 obvious to one of ordinary skill in the art.

Thus, reconsideration and withdrawal of this rejection are respectfully requested.

III. New Claim

The references of record, taken singly or in combination, fail to teach or suggest a deck plate that is supported by the sub-connecting member and located adjacent to a top side of the sub-connecting member as recited in new claim 5.

Thus, Applicant submits that the method recited in new claim 5 would not have been obvious to one of ordinary skill in the art in view of the references of record.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-5 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicant respectfully requests that this be considered a petition therefor. The Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,
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